REMARKS

Claims 1-16 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 112, First Paragraph, Rejection:

The Examiner rejected claims 1, 6, 11 and 16 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner incorrectly asserts that "the word 'quiesce' is very rarely used." The word "quiesce" occurs often within the realm of computation, and is used in many modern patents in computer technology. In particular, the term "quiesce" is frequently used with a well understood meaning in the art of storage technology that is consistent with how the term is used in Applicants' claims. Applicants note that the Examiner cites a patent of Hart, 6,983,295, which uses the word "quiesce." Applicants' usage of the word "quiesce" is consonant with conventions readily understood and accepted by those skilled in the relevant arts of storage technology.

Applicants draw the Examiner's attention to para. [0006] of the specification which states:

> In distributed shared storage environments where multiple clients may need simultaneous access to the same data, datasets may be fixed into specific versions to ensure data integrity across client sessions. These dataset versions may be referred to as file images. Certain tasks, like backing up one or more files, checking and correcting data consistency across mirrored database files, or virus removal may require a single application or process to have exclusive access to one or more file images. Typically, general access to the datasets involved must be quiesced and all data caches must be flushed. (emphasis added).

Thus, the phraseology use in Applicants' independent claims is clearly supported in the specification. Applicants respectfully remind the Examiner that it is well settled law that

the claimed invention does not have to be described in *ipsis verbis* in order to satisfy the description requirement of §112. *Jacobs v. Lawson*, 214 USPQ 907, 910 (B.P.A.I. 1982). "The subject matter of the claim need not be described literally in order for the disclosure to satisfy the description requirement." *M.P.E.P. 2163.02*. As longs as the description "allows persons of ordinary skill in the art to recognize that [the inventors] invented what is claimed" then the description requirement is satisfied. *In re Gosteli*, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Moreover, the section 112 description requirement may be satisfied by principles of inherency. *In re Reynolds*, 443 F.2d 384 (CCPA 1971). As shown above, Applicants' claims are clearly in complete compliance with the requirements of 35 U.S.C. § 112, first paragraph. Withdrawal of this rejection is respectfully requested.

Section 101 Rejection:

The Examiner rejected claims 6-16 because none of the claims are directed to statutory subject matter. Applicants' respectfully traverse this rejection. However, in order to expedite prosecution, claims 6, 7, and 9 have been amended to recite a "metadata server computer system."

Regarding claim 11, the Examiner asserts that this claim also lacks "the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101." However, claim 11 recites a computer-readable storage medium. As noted in MPEP 2106.01, "[w]hen functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." *See, e.g., In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035. Therefore, the rejection of claim 11 and its dependent claims 12-15 is improper.

In regard to claim 16, Applicant notes that according to the section of the MPEP on Patentable Subject Matter Eligibility, MPEP 2106.II.C, "Where means plus function language is used to define the characteristics of a machine or manufacture invention, such language must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof" that correspond to the recited function. Two *en banc* decisions of the Federal Circuit have made clear that the USPTO is to interpret means plus function language according to 35 U.S.C. § 112, sixth paragraph. *In re Donaldson*, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) (en banc); *In re Alappat*, 33 F.3d 1526, 1540, 31 USPQ2d 1545, 1554 (Fed. Cir. 1994) (en banc)." The structures and materials disclosed in Applicants' specification clearly include computer hardware [0015, 0021, 0032, 0036, 0037]. Therefore, the rejection of claim 16 is improper.

Withdrawal of this rejection is respectfully requested.

Section 103(a) Rejection:

The Examiner rejected claims 1, 3-6, 8-11 and 13-15 under 35 U.S.C. § 103(a) as being unpatentable over Schmeidler et al. (U.S. Patent 6,374,402) (hereinafter "Schmeidler") in view of Hart (U.S. Patent 6,983,295), and claims 2, 7, 12 and 16 as being unpatentable over Schmeidler in view of Hart and further in view of McBrearty et al. (U.S. Publication 2004/0015585) (hereinafter "McBrearty"). Applicants respectfully traverse these rejections for at least the following reasons.

In regard to claim 1, contrary to the Examiner's assertion, the cited art does not teach or suggest in response to a metadata server receiving a data access request from a client, the metadata server determining a maximum expiration time indicated by a next scheduled quiesce time, as recited in claim 1. The Examiner refers to Schmeidler, FIG.8, and to column 22, lines 51-54 and lines 59-66, as teaching this aspect of Applicants' claim. However, the cited portion of Schmeidler actually refers to a token authorizing a client to access a purchased title from a network file server (a Random Access File

Transport (RAFT) server). The token, illustrated in FIG. 8 as RAFT token 800, contains a start-time element 806 and an end-time element 808, which define the **time *interval*** during which the client may access a particular resource, namely the title the client has purchased. This has no bearing whatsoever on a metadata server determining a **maximum expiration time *indicated by a next scheduled quiesce time***. The time interval of Schmeidler's token specifies a particular **time *period*** during which the client may access a purchased resource. It does not indicate a **maximum expiration time *indicated by a next scheduled quiesce time***, which is a time at which exclusive access to certain data is required by a task. Moreover, the token of Schmeidler is provided not by the network file server (RAFT server), but by the conditional access server (CAS). Thus, Schmeidler clearly does not describe in response to a metadata server receiving a data access request from a client, the metadata server determining a maximum expiration time indicated by a next scheduled quiesce time. Nor do any of the other cited references teach this aspect of Applicants' claim, whether considered alone or in combination with Schmeidler.

Further in regard to claim 1, contrary to the Examiner's assertion, the cited art does not teach or suggest the data access request is for data that is also accessible by one or more other clients each having a corresponding unexpired token, as recited in claim 1. The Examiner refers to Schmeidler, column 3, lines 47-51, as teaching this aspect of Applicants' claim. However, the cited portion of Schmeidler actually refers to security mechanisms to protect content from unauthorized access and replay. In particular, it discloses an authorization token from the conditional access server (CAS) indicating that the requesting user can have access to a specified briq (a portable, self-contained file system, containing all of the files necessary to run a particular title [column 2, lines 60-62]), on a specific RAFT file server, for the length of time spelled out in the negotiated payment type. There is no indication of a data access request for data that is **also accessible by other clients *each having a corresponding unexpired token***. Nor do any of the other cited references teach this aspect of Applicants' claim, whether considered alone or in combination with Schmeidler.

Further in regard to claim 1, contrary to the Examiner's assertion, the cited art does not teach or suggest wherein said quiesce time is a time when exclusive access to the data is required by a task, as recited in claim 1. The Examiner refers to Hart, column 16, lines 53-54, as teaching this aspect of Applicants' claim. However, the cited text refers to claim 3 of Hart, reciting "means to utilize said REBUILDINFO file to access said QUIESCE Time Stamp indicating the point in time to begin audit image application from audit disk (A1) to auxiliary data disk (D2)" Thus, the QUIESCE **time stamp** of Hart indicates when to begin an audit image application from an audit disk to an auxiliary data disk. Hart does not teach or suggest that quiesce time is a time when exclusive access to the data is required by a task, as recited in claim 1.

Further in regard to claim 1, the Examiner has not stated a proper reason to combine the teachings of the cited art, nor explained how to combine them. The Examiner asserts that it would have been obvious to combine the teachings of Schmeidler with the teachings of Hart because "Hart's teachings would have allowed Schmeidler's method to provide a recovery method that can be measured in minutes (col. 2, lines 53-54)." However, Schmeidler is directed to encrypted, protected, secure delivery of purchased executable software content from a network file server to a client, whereas Hart is directed to rapid **recovery during failure of a primary active database by an auxiliary database**. The systems of Schmeidler and Hart are completely different types of systems. Schmeidler makes no mention of there being primary active and auxiliary databases, so that Hart's goal of recovery aimed at putting a multiple-node database in a physically consistent state is irrelevant. The quoted passage in Hart refers to recovering a multiple-node database into a physically consistent state "in minutes," and has no bearing on Schmeidler's system for encrypted, protected, secure delivery of purchased executable software content from a network file server to a client. Thus, one of ordinary skill would not have combined the teachings of Schmeidler with the teachings of Hart in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness.

Further in regard to claim 1, contrary to the Examiner's assertion, the cited art does not teach or suggest generating an access token that grants the client access to data stored on one or more storage devices associated with the metadata server, **where the access token comprises an expiration time set by the metadata server to be no later than the maximum expiration time indicated by the next scheduled quiesce time**, as recited in claim 1. The Examiner again refers to Schmeidler, FIG.8, and to column 22, lines 65-66, as teaching this aspect of Applicants' claim. However, as already explained above, the token described in the cited portion of Schmeidler and illustrated in FIG. 8 as RAFT token 800, contains a start-time element 806 and an end-time element 808, which define the time interval during which the client may access a particular resource, namely the title the client has purchased. This has no bearing whatsoever on an expiration time set by the metadata server to be no later than **the maximum expiration time indicated by the next scheduled quiesce time**, which is a time at which *exclusive* access to certain data is required by a task. Moreover, the token of Schmeidler is provided not by the network file server (RAFT server), but by the conditional access server (CAS). Thus, Schmeidler clearly does not describe generating an access token that grants the client access to data stored on one or more storage devices associated with the metadata server, where the access token comprises **an expiration time set by the metadata server to be no later than the maximum expiration time indicated by the next scheduled quiesce time**. Nor do any of the other cited references teach this aspect of Applicants' claim, whether considered alone or in combination with Schmeidler.

Independent claims 6 and 11 recited limitations similar to those found in independent claim 1, and so the arguments presented above apply with equal force to the those claims, as well. For at least the above reasons, the cited references, whether considered alone or in combination, clearly do not teach Applicants' independent claims 1, 6, and 11. Withdrawal of the rejections is respectfully requested.

In regard to claim 16, contrary to the Examiner's assertion, the cited art does not teach or suggest setting the expiration time of an access token to the earlier of either a maximum expiration time indicated by a next scheduled quiesce time or the default

expiration time, wherein the access token grants a client access to data stored on one or more storage devices associated with a metadata server, as recited in claim 16. The Examiner refers to Schmeidler, FIG.8, and to column 22, lines 51-54 and lines 59-66, as teaching this aspect of Applicants' claim. However, the cited portion of Schmeidler actually refers to a token, illustrated in FIG. 8 as RAFT token 800, which contains a start-time element 806 and an end-time element 808, which define the **time interval** during which the client may access a particular resource, namely the title the client has purchased. There is absolutely no indication of setting the expiration time to ***the earlier* of either a *maximum expiration time indicated by a next scheduled quiesce time*, or *the default expiration time***. Nor do any of the other cited references teach this aspect of Applicants' claim, whether considered alone or in combination with Schmeidler.

Further in regard to claim 16, contrary to the Examiner's assertion, the cited art does not teach or suggest determining a default expiration time and setting the expiration time of an access token to the earlier of either a maximum expiration time indicated by a next scheduled quiesce time or the default expiration time, as recited in claim 16. The Examiner refers to McBrearty, paragraph **[0004]** as teaching this aspect of Applicants' claim. However, the cited portion of McBrearty only teaches that in a typical system, a security token has a limited lifetime, typically 24 hours before the token expires and the user must re-apply for a new token. Nowhere does McBrearty mention ***determining a default* expiration time**, or a **next scheduled quiesce time**, much less *comparing* the **determined default expiration time** and a **maximum expiration time indicated by a next scheduled quiesce time**. Moreover, Schmeidler and Hart fail to overcome this deficiency of McBrearty.

Further in regard to claim 16, the Examiner asserts that it would have been obvious to combine the teachings of Schmeidler with the teachings of McBrearty because "McBrearty's teachings would have allowed Schmeidler's system and method for that (sic) allows for security tokens to be utilized which have more flexibility in a networked system (page 1, paragraph **[0010]**)." The Examiner apparently intended to refer to paragraph [0009] of McBrearty, which refers to more flexible security tokens. However,

even the proposed hypothetical combination of Schmeidler with McBrearty would not yield a system or method that includes the limitations of claim 16. At most it would allow Schmeidler to perform the sort of interruptions described in McBrearty at paragraph [0005]. But as McBrearty suggests at [0005], those interruptions would allow a system administrator to block access temporarily to prevent users from writing to the system, which would have no applicability in, and could even hamper, Schmeidler's system for securely *delivering on-demand content* over a broadband access network, where the client does not write to the system, but instead plays content such as audio, video, and animation which are stored on the network file server of Schmeidler. Thus, the references actually teach away from this combination, so that one of ordinary skill would not have combined the teachings of Schmeidler with the teachings of McBrearty in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness.

Further in regard to claim 16, contrary to the Examiner's assertion, the cited art does not teach or suggest receiving a data I/O request associated with the access token, where the data I/O request is for data that is also accessible by one or more other clients each having a corresponding unexpired token, as recited in claim 16. The Examiner refers to Schmeidler, column 3, lines 47-51, as teaching this aspect of Applicants' claim. However, the cited portion of Schmeidler actually refers to security mechanisms to protect content from unauthorized access and replay. In particular, it discloses an authorization token from the conditional access server (CAS) indicating that the requesting user can have access to a specified briq (a portable, self-contained file system, containing all of the files necessary to run a particular title [column 2, lines 60-62]), on a specific RAFT file server, for the length of time spelled out in the negotiated payment type. There is no indication that the data I/O request is for data that is **also accessible by one or more other clients *each having a corresponding unexpired token***.

Further in regard to claim 16, the Examiner notes that Schmeidler does not teach that the quiesce time is a time when exclusive access to the data is required by a task, as recited in claim 16. The Examiner refers to Hart, column 16, lines 53-54, as teaching this

aspect of Applicants' claim. However, the cited text refers to claim 3 of Hart, reciting "means to utilize said REBUILDINFO file to access said QUIESCE Time Stamp indicating the point in time to begin audit image application from audit disk (A1) to auxiliary data disk (D2)" Thus, the QUIESCE **time stamp** of Hart indicates when to begin an audit image application from an audit disk to an auxiliary data disk. Hart does not teach that quiesce time is a time when exclusive access to the data is required by a task, as recited in claim 16.

Further in regard to claim 16, the Examiner asserts that it would have been obvious to combine the teachings of Hart with the teachings of McBrearty because "Hart's teachings would have allowed Schmeidler's method to provide a recovery method that can be measured in minutes (col.2, lines 53-54)." However, Schmeidler is directed to encrypted, protected, secure delivery of purchased executable software content from a network file server to a client, whereas Hart is directed to rapid **recovery during failure of a primary active database by an auxiliary database**. The systems of Schmeidler and Hart are completely different types of systems. Schmeidler makes no mention of there being primary active and auxiliary databases, so that Hart's goal of recovery aimed at putting a multiple-node database in a physically consistent state is irrelevant. The quoted passage in Hart refers to recovering a multiple-node database into a physically consistent state "in minutes," and has no bearing on Schmeidler's system for encrypted, protected, secure delivery of purchased executable software content from a network file server to a client. Thus, one of ordinary skill would not have combined the teachings of Schmeidler with the teachings of Hart in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness.

For at least the above reasons, the cited references, whether considered alone or in combination, clearly do not teach Applicants' independent claims 16. Withdrawal of the rejection is respectfully requested.

Applicants also assert that the rejection of numerous ones of the dependent claims is further unsupported by the cited art. However, since the rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-19800/RCK.

Respectfully submitted,

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